

Rheem Tankless: <http://waterheatertimer.org/Troubleshoot-Rheem-Tankless-water-heater.html>

**Error message C7-76:** communication problem between remote control and tankless unit.

**Suspects include**

- (a) Remote control
- (b) PCB or main PC circuit board
- (c) Wire or wire connections between tankless and remote

**Temporary fix:** Power off at remote control, wait 5 minutes and power back on, and then it should work.

**Troubleshoot steps:**

- 1) Unplug or Turn off electricity to tankless and remove cover. Find two terminals that remote control connects to.
- 2) Disconnect remote control wiring. Turn electricity back ON.
- 3) Open hot water tap and see if unit works as expected.
- 4) Without remote, tankless will heat water to default 100 degrees F° and will run without the remote.

*Temperature needed to kill bacteria is 140F ... do not expect tankless to provide that temperature*

5) If tankless works correctly at this point, then PCB (main PC circuit board) is eliminated as immediate suspect, and problem is likely remote control or wiring going to remote control.

6) Connect remote to tankless using different wire. Use ordinary 18 gauge thermostat wire from hardware store or home center. This will eliminate wire as suspect. Remaining suspect is remote control.

7) Replace remote control. [Buy remote control](#)

-Tankless can have two remote controls. Use two 18 ga wires to unit. [Buy Rheem 2nd remote control](#)

*If Not: you can buy whole new tank-type gas water heater at local box store \$450-650.*

8) If main PC Board needs replacement, call Rheem with model and serial number/ Compare that to replacing motherboard on computer, and assume that tankless will work as expected if unit is NOT older than 5-6 years, and has not been exposed to surge event and unit has been maintained as shown in product manual. [More about maintenance](#)

**Multiple errors + 76?**

Multiple error codes plus 76 code => problem with PCB main circuit board, or dirty parts.

Catch up on maintenance. [More about maintenance](#)

**Unit getting full of dirt will cause multiple errors**

[Read typical tankless maintenance pdf](#)

**Including:**

De-lime and clean combustion parts yearly [How to delime tankless](#)

De-lime and clean unit each year

Clean tankless water filter each month yes, every month! [More about maintenance](#)



Neil says: I like projects

**Keep in mind:** All gas and electric water heaters require maintenance.

- Tankless maintenance schedule is more frequent: monthly and yearly.
- Tank-type water heater maintenance is less frequent: once every 2-3 years, unless unit is hybrid or condensing etc.
- Tankless warranty period is NOT longer than warranty for tank-type water heaters.
- Tankless cannot be exposed to more than 11 grains hardness in water, or parts will fail.

**All costs are energy:**

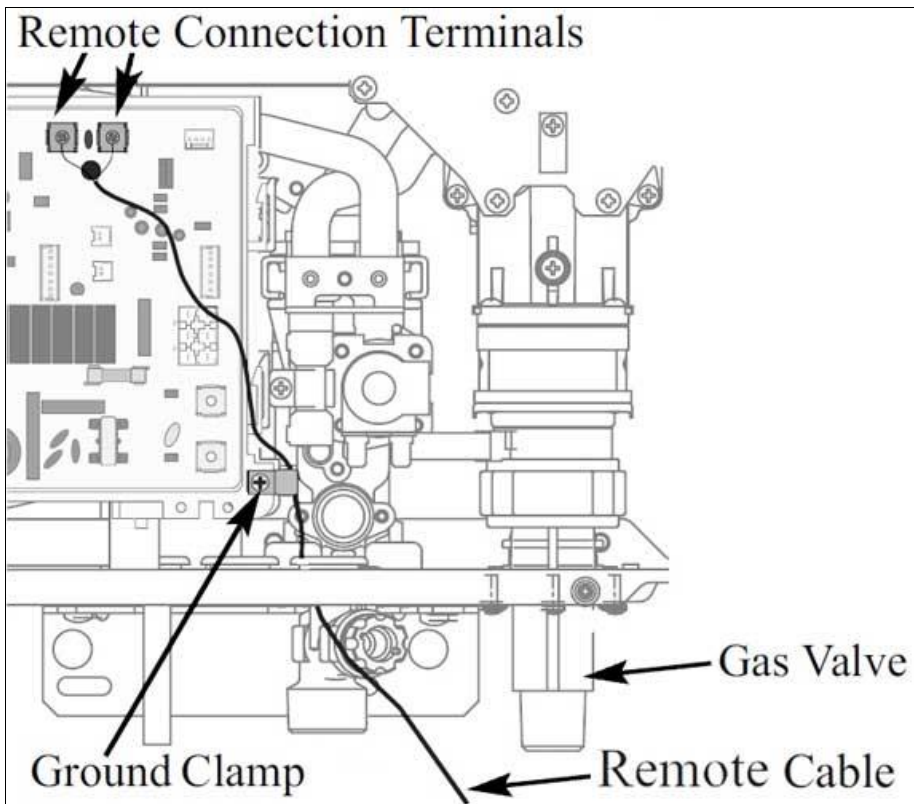
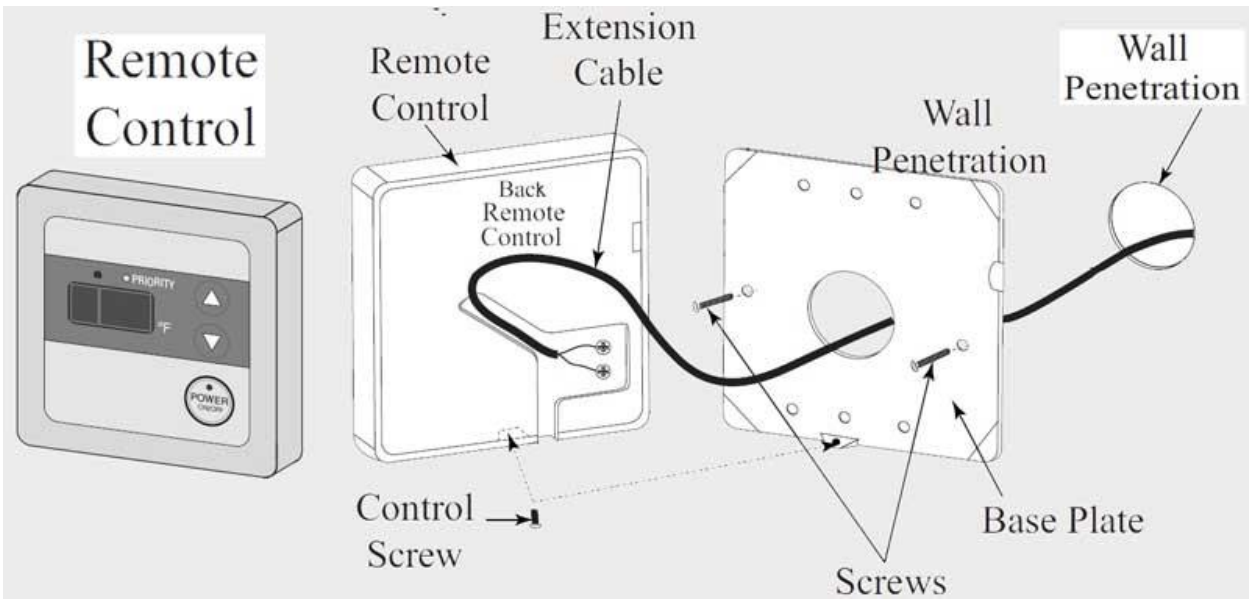
Expected energy savings for average family owning gas Tankless is \$1-8 per month. [Read more](#)

When you factor cost of purchase, installation, maintenance, parts, cost of professional repairs, replacement, then tankless can be more expensive than tank type water heater.

**More resources:**

[Troubleshoot-Rheem-Tankless-water-heater.html](http://waterheatertimer.org/Troubleshoot-Rheem-Tankless-water-heater.html)

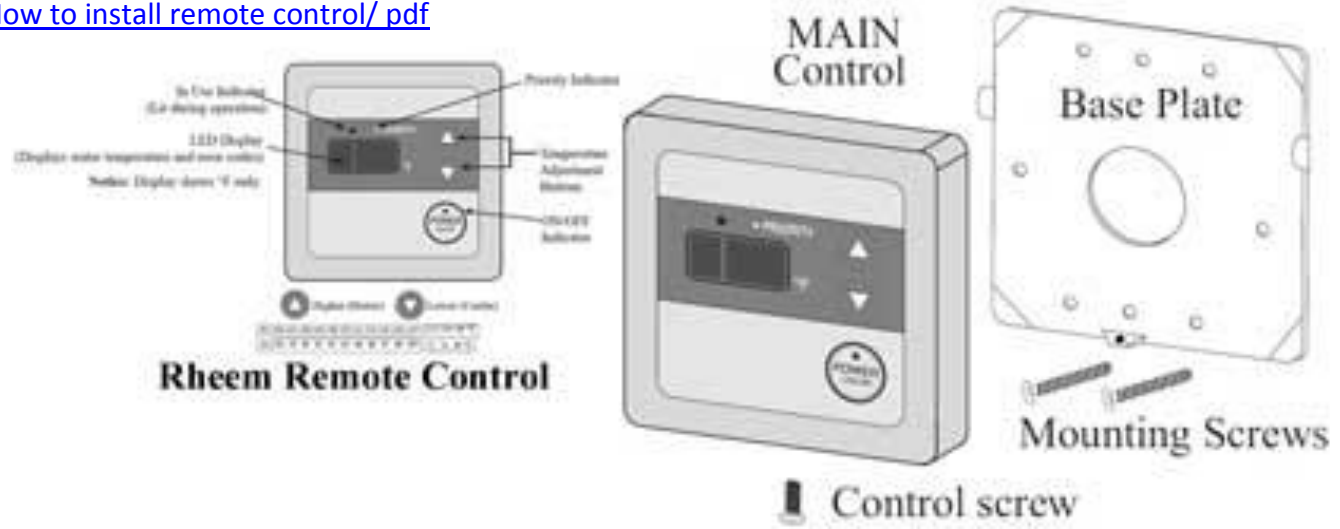
[How-to-install-tank-type-gas-water-heater.html](http://waterheatertimer.org/How-to-install-tank-type-gas-water-heater.html)



- Do not install remote outdoors
- Do not expose remote to water
- Do not expose to direct sunlight
- Avoid exposure to high heat
- Avoid exposure to steam
- Avoid chemical atmospheres

Max distance 195 feet between remote and tankless

[Buy Remote control at Amazon](#)  
[How to install remote control/ pdf](#)



May not apply to your unit

# Wiring Diagram

COLOR CODING	
W	:White
BK	:Black
BR	:Brown
R	:Red
BL	:Blue
Y	:Yellow
P	:Pink
O	:Orange
G	:Green
GY	:Gray

